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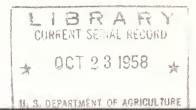


# UMATILLA RIVER, WALLA WALLA RIVER A 292.9 and WILLOW CREEK WATERSHEDS

(10/2° 2

### WATER SUPPLY OUTLOOK

as of
APRIL 1, 1957

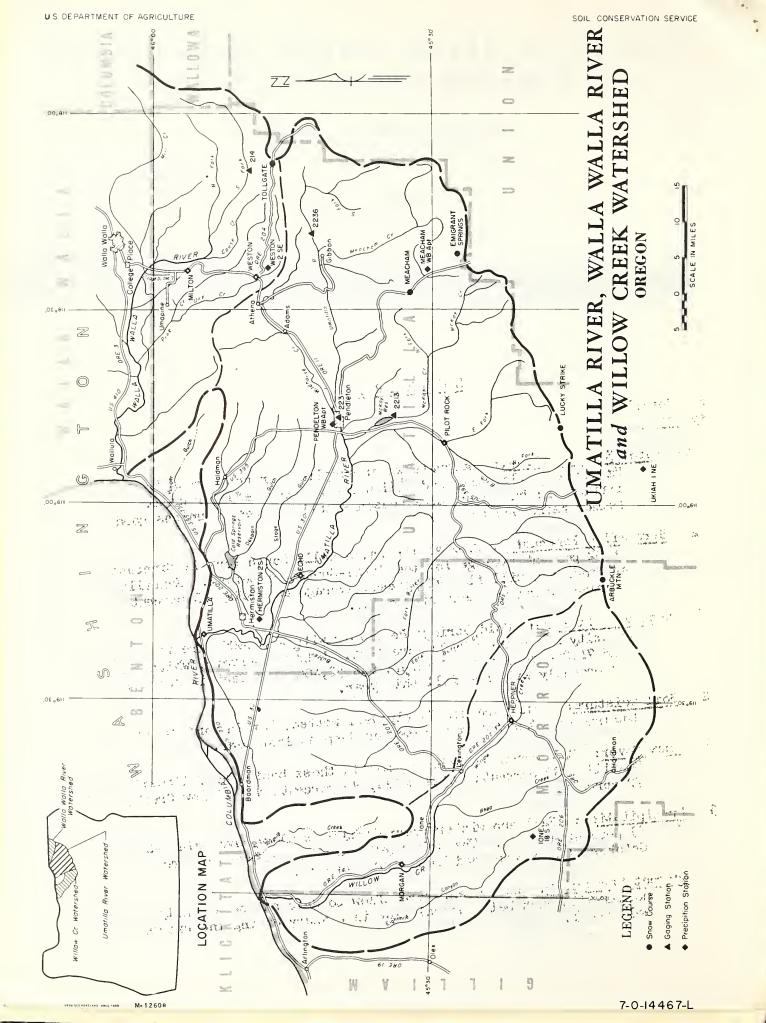


U.S. SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

#### SUMMARY

## For details see page:

- Water Supply Outlook: Adequate water supplies for most areas in Umatilla, Walla Walla and Willow Creek watersheds for usual irrigation; but short late season supplies expected unless good summer rains occur.
- 2 Streamflow Forecasts: Flow of the Walla Walla South Fork is forecast at 82 percent average for the April-September period. Umatilla at Pendleton will flow 92 percent average and McKay 68 percent average during the next six months.
- Reservoir Storage: Cold Springs Reservoir with a 50,000 acre feet capacity now holds 45,200 acre feet. McKay Reservoir, which can hold 74,000 acre feet of water, has 52,400 acre feet in storage and probably will not fill this year.
- 2 Soil Moisture: Soils are now fairly well wetted, but in some areas the moisture has not penetrated as deep as last year.
- 3 Snow-Cover: Snow-cover is below normal in these basins as follows:
  Umatilla, 82 percent; Walla Walla, 86 percent, and Willow Creek,
  72 percent.
- 3 Precipitation: Fall and winter precipitation was low, averaging about 89 percent average. The only months well above average were October, 142 percent and March, 184 percent.
  - Current Streamflow: Water year streamflow to date has been nearly normal with much below normal flow in January during the extreme cold spell.



# For April-September 1957<sup>a</sup>

Source of Water	Acreage	Ou <b>tlo</b> ok
pource of water	Irrigated	Outlook
Jalla Walla Basin	All makings	
		Supplies Walla Walla city water.
Mill Creek		Flow will be adequate and will be
•		about 29,000 acre feet during the
		next six months.
		Adequate water for all usual
North Fork Walla Walla	124	irrigation.
Could David Walls Walls		Adequate water for all usual
South Fork Walla Walla	348	irrigation.
Main Hann Tinna		Adequate water for all usual
Main Walla Walla	1,344	irrigation.
14447 - 17-77 - 17-77 -	(	Adequate water for usual irrigation
Little Walla Walla	13,700	but late water rights on Hudson
·		Bay and Plainview Ditches will
		be short late in season.
Man Con alex	, .	Some late-season shortagesother-
Mud Creek	373	wise adequate.
Draw Crassis	3 000	Some late-season shortages-other-
Dry Creek	1,207	wise adequate.
Dima Grand	way have a financial and	Some late-season shortagesother-
Pine Creek	759	wise adequate.
	الله والمراجع	Some late-season shortages other-
Dugger Creek	595	wise adequate.  Some late-season shortagesother-
Johnson Creek	330	Some late-season shortagesother-
	****	wise adequate.
		Early-season water will be adequat
Main Umatilla	12 071	Late-season supplies will fall off
or also	12,074	unless sustained by good summer
	The same of the same	rains.
~	· ·	
The state of the s	er e le unan	Early-season water will be adequat
Umatilla and Cold Springs	6,000	Possibly some late-season shortage
Umatilla and Maker Dan	0 (00	McKay storage below normal. Suppli
Umatilla and McKay Res.	9,693	will be nearly adequate if properly
		used and with good summer rains.
NeVer Consider	110 5 10 000	One irrigation only. Late-season
McKay Creek	280	water likely to be short.
Birch Creek	** * 3, 000	One irrigation only. Late-season
DILCH CLEEK	1,000	water likely to be short.
Butter Creek	6 000	One irrigation to augment a good
illow Creek Basin	6,000	flow received already.
		Dalam manual Class Command Advisor
Willow and Rhea Creeks		Below normal flow forecast. Adequa
"TITOW and ruled Creeks	11,780	for only one good irrigation.

a - Assuming normal neteorological conditions during the April - September period.

### STREAMFIOW FORECASTS<sup>a</sup> As of April 1, 1957

	Gaging Station		Streamflow in		
No.	Name	Forecast 1957	Forecast Pe <b>rio</b> d		Yr. Avg.
214	Walla Walla So. Fk. nr. Milton	58.0	AprSept.	70.5	82
214	Walla Walla So. Fk. nr. Milton	48.0	AprJuly	57.8	83
2236	Umatilla R., nr. Gibbon	80.0	AprSept.	86.8	9 <b>2</b>
223	Umatilla R., at Pendleton	155.0	AprSept.	167.4	9 <b>2</b> .
223	Umatilla R., at Pendleton	142.0	AprJuly	154.5	92
2213	McKay Cr., nr. Pilot Rock	19.0	AprSept.	27.8	68
2213	McKay Cr., nr. Pilot Rock	18.7	AprJuly	27.6	68 .

### RESERVOIR STORAGE

	Usable	Thousand a.f. in storage about April 1, 1957							
Reservoir	Capacity 1000 a.f.	1957	1956		15-Yr. Avg. 1938-52	1957 as % of 15-Yr. Avg.			
McKay	74.0	52.4	57.9	20.2	58.9	89			
Cold Springs	50.0	45.2	49.4	49.4	48.2	94			
Total (2 Reservoirs)	124.0	97 <b>.6</b> °	107.3	62.5	·107•1	·91 ··· ·			

### SOIL MOISTURE

Soils In:	Fall Status		Current	status as	s of April	1, 1957
-	(		( .		∆r Ie	
Valleys (irrigated)	Ċ	• •				
	Poor	- •	(	Good		
	( 1001	1	( )			
Mountains			(			
	( 2,1%		(			

As of April 1, 1957

	Snow Course			1957		er Con	1957 as	
No.	Name	Elev.	Snow Depth (In.)	n Content		1955	15-Yr.Avg. 1938-52	% of 15- Yr. Avg.
	below 4500°							
18D4	Emigrant Sprgs.	39251	11	4.0	7.0	13.3	5.8	69
18D5	Meacham	43001	20	7.7	13.2	19.0	8.7	<u>89</u>
	Average			5.8	10.1	16.2	7.2	81
	above 4500:							
19D2	Arbuckle Mtn.	5400	19	7.8	15.4	14.2	10.8	72
18 <b>D6</b>	Lucky Strike	50501	Not	surveyed	18.2	14.3	13.1**	
18D3	Tollgate	5070	57	23.9	31.6-	29.9	27.9	86
	Average			15.8	23.5	22.0	19.4	72
							81	
** Average is for less than 15 years of record in 1938-52 period but not less than 5 years.								

### PRECIPITATION DATA 1956-57

Station		Precipitation (inches)							Avg.	Avg.as %	
Name	Elev.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Avg.	Normal*	of Normal
Echo	601	•00	•97	.47	.90	1.19	•96	e1.61	e .87	1.02	85
Heppner	1950	${f T}$	1.96	.31	•43	1.03	1.09	4.08	1.27	1.24	102
Hermiston 2S	624	• 02	1.10	•35	.83	.83	.81	el.20	e .73	.87	84
Ione 18S	1925	•00	1.59	•33	.94	1.10	1.13	e2.18	e1.04	1.24	84
Meacham WB Apt.	4050	•25			5.13	2.39	3.66	3.88	2.82	3.70	76
Milton Freewater	1056	•06	1.84	•92	1.22	1.29	1.12	2.75	1.31	1.38	95
Morgan	783	${f T}$	1.04	•28	.47	•92	.81	e1.30	e .69	• 94	73
Pendleton WB.AP	1489	$\mathbf{T}$	1.39	.34	1.27	1.81	.88	2.31	1.14	1.41	81
Pilot Rock 1 SE	1640	.01	2.20	•37	1.13	98	1.15	3.12	1.28	1.24	103
Ukiah	3340	•19	2.35	•54	1.07	2.49	2.00	3.13	1.68	1.61	104
Umatilla	285	.12	1.31	.19	•86	. 98	.68	2.19	• 90	.83	108
	-										
Average		.06	1.68	.43	1.30	1.36	1.30	2.52	1.25	1.41	89
Avg. Normal*		• 74	1.18	1.65	1.71	1.69	1.53	1.37			
Avg. as % of Norm		8	142	26	83	80	85	184			
Fall Avg. as % of	Fall			***********							
Normal (Sept-Oct	(voW-	61									
* Based on USWB	e est	imate	ed								

